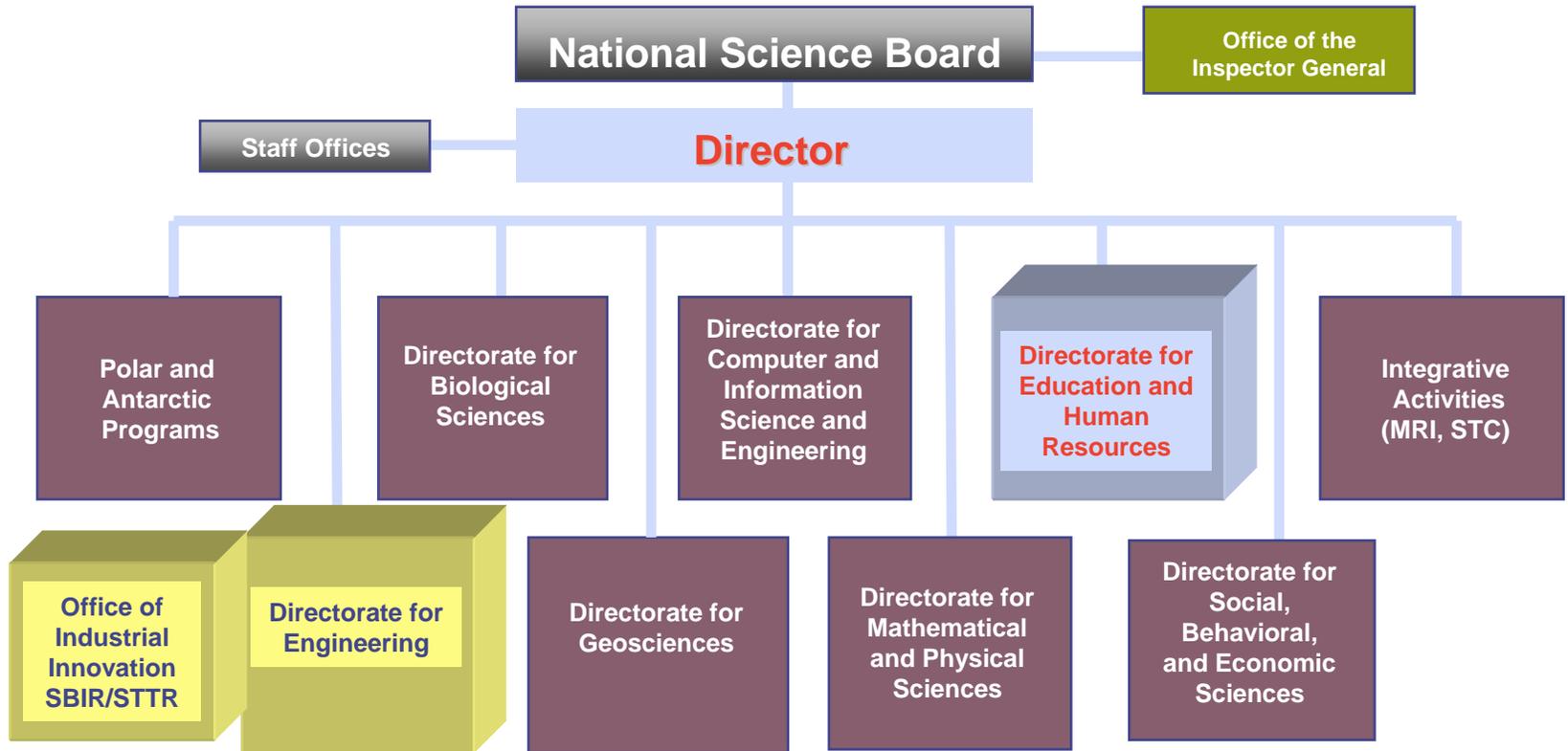


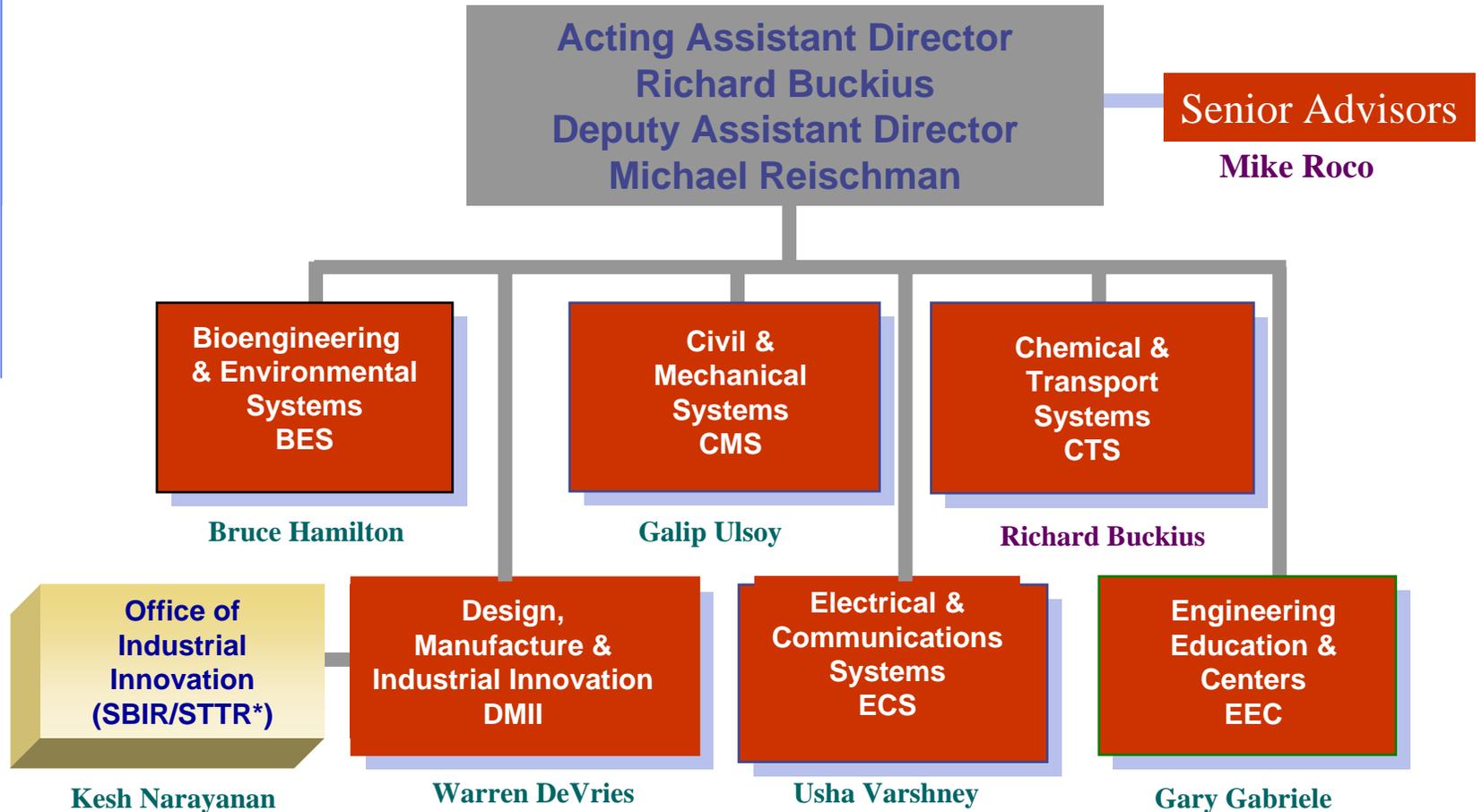
Small Business Innovation Research (SBIR)
Small Business Technology Transfer
(STTR)
National Science Foundation

Juan E. Figueroa Ph.D.
SBIR/STTR Program Manager
Office of Industrial Innovation
National Science Foundation

National Science Foundation



NSF Engineering Directorate



*NSF-wide program



Program Descriptions

- ◆ **SBIR:** Set-aside program for small business concerns to engage in federal R&D -- with potential for commercialization.

- ◆ **STTR:** Set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions -- with potential for commercialization.



The SBIR/STTR Program

Small Business Innovation Development Act of 1982

Congress designated 4 major goals

- ◆ Stimulate technological innovation in the private sector
- ◆ Use small business to meet federal R&D needs
- ◆ Foster and encourage participation by minorities and disadvantaged persons in technological innovation
- ◆ Increase private-sector commercialization innovations derived from federal R&D



SBIR / STTR Participating Agencies



TOTAL ~ \$2.2 B
Est. FY 2006

◆ DOD	SBIR/STTR
◆ HHS	SBIR/STTR
◆ NASA	SBIR/STTR
◆ DOE	SBIR/STTR
◆ NSF	SBIR/STTR
~\$104M	
◆ DHS	SBIR
◆ USDA	SBIR
◆ DOC	SBIR
◆ ED	SBIR
◆ EPA	SBIR
◆ DOT	SBIR

SBIR Program Eligibility Checkpoints

- ✓ Organized for-profit U.S. business
- ✓ At least 51% U.S.-owned and independently operated
- ✓ Small Business located in the U.S.
- ✓ P.I.'s primary employment with small business during project
- ✓ 500 or fewer employees

Agency SBIR/STTR Differences

- ◆ R&D Topic Areas
- ◆ Dollar Amount of Award (Phase I and II)
- ◆ Receipt Dates / Number and Timing of Solicitations
- ◆ Proposal Review Process
- ◆ Proposal Success Rates
- ◆ Type of Award (Contract or Grant)
- ◆ Many other details:
 - ✓ Profit or fee allowed
 - ✓ Phase I to Phase II gap funding
 - ✓ Payment types and schedule



Small Business Technology Transfer (STTR)

- ◆ Three-phase program for cooperative between small business and either university or non-profit research institution, includes FFRDCs
 - Minimum Small Business effort = 40%; Minimum University or Non-Profit effort = 30% and remaining 30% divided by SB and University/Non-Profit or other subcontracts/consultants
- ◆ Small business and research institution MUST have an intellectual property agreement in place prior to a Phase I award, but not essential at time of proposal submission. Ongoing dialogue should be evident.
- ◆ Small business is the grantee or prime contractor.
- ◆ .30% set aside for 2004



NSF Mission

To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense

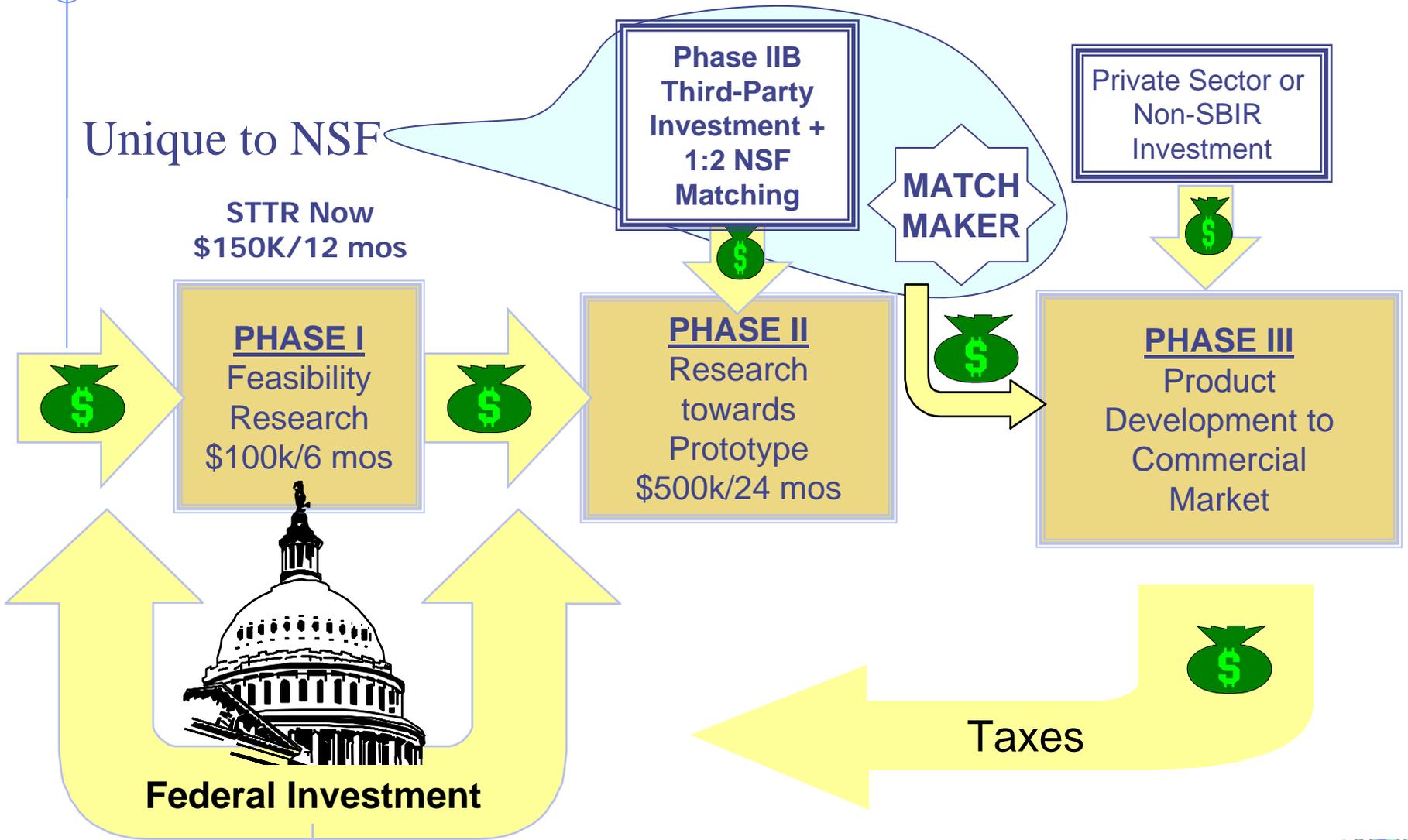


Primary Objective NSF SBIR/STTR Program

To increase the incentive and opportunity for small firms to undertake **cutting-edge, high risk, high quality scientific, engineering, or science/engineering** education research that would have a high potential economic payoff if the research is successful.



NSF SBIR/STTR Innovation Model



NSF Merit Review Criteria

◆ Intellectual Merit

- Technical Quality

◆ Broader Impacts

- Commercialization Potential



Doing Business with NSF

- ◆ NSF is not the Final Customer
- ◆ NSF is not buying your product/process/software or your intellectual property
- ◆ NSF has broad market driven technology topics:
 - **you identify the opportunity**
 - **pose the research problem**
 - **propose novel/unique solution**
- ◆ NSF wants to see you successfully **commercialize** your high-tech research
- ◆ You need investment dollars beyond NSF SBIR/STTR



Market Driven Investment Focused Solicitation Topics

- ◆ Biotechnology
- ◆ Chemical-Based Technology
- ◆ Emerging Opportunities
- ◆ Advanced Materials and Manufacturing
- ◆ Electronics
- ◆ Information-Based Technologies
- ◆ Manufacturing Innovation



Market Driven Investment Focused Solicitation Topics

- ◆ **Solicitation Released every 6 Months**
- ◆ **Topics rotate 12-18 months**
- ◆ **Current Topics – proposals under review**
 - **Manufacturing Innovation (MI)**
 - **Advanced Materials (AM)**
 - **Information Technology (IT)**
 - **Emerging Opportunities (EO)**
- ◆ **Electronic (via the NSF FastLane Submission System)**
 - **Register company**
 - **Submit at least 3 to 5 days before the deadline**

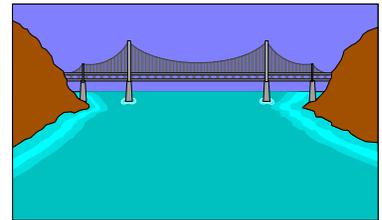


Bridging the Gap

◆ Phase I	\$100,000	SBIR 6months
◆ Phase I	\$150,000	STTR 12months
◆ Phase II	\$500,000	SBIR/STTR 24 months

☀ Phase IIB - Supplemental Research to fit the investors' needs

- ☀ NSF: \$50,000 to \$500,000
- ☀ Investor: \$100,000 to >\$1,000,000



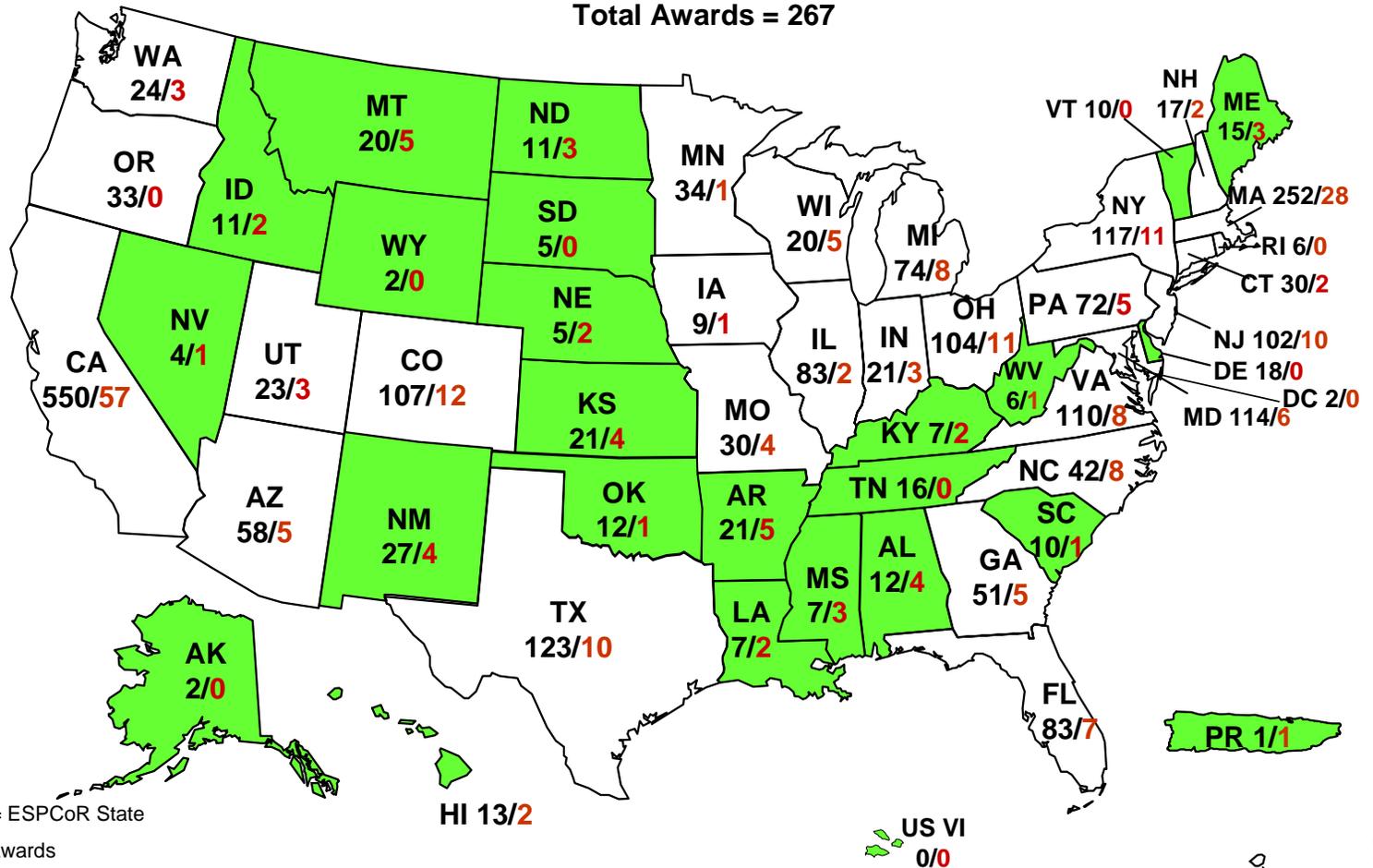
◆ Phase III Commercial Application Private funding

2004 Phase I Awards

2004 Phase I Proposals

Total Submitted = 2598

Total Awards = 267



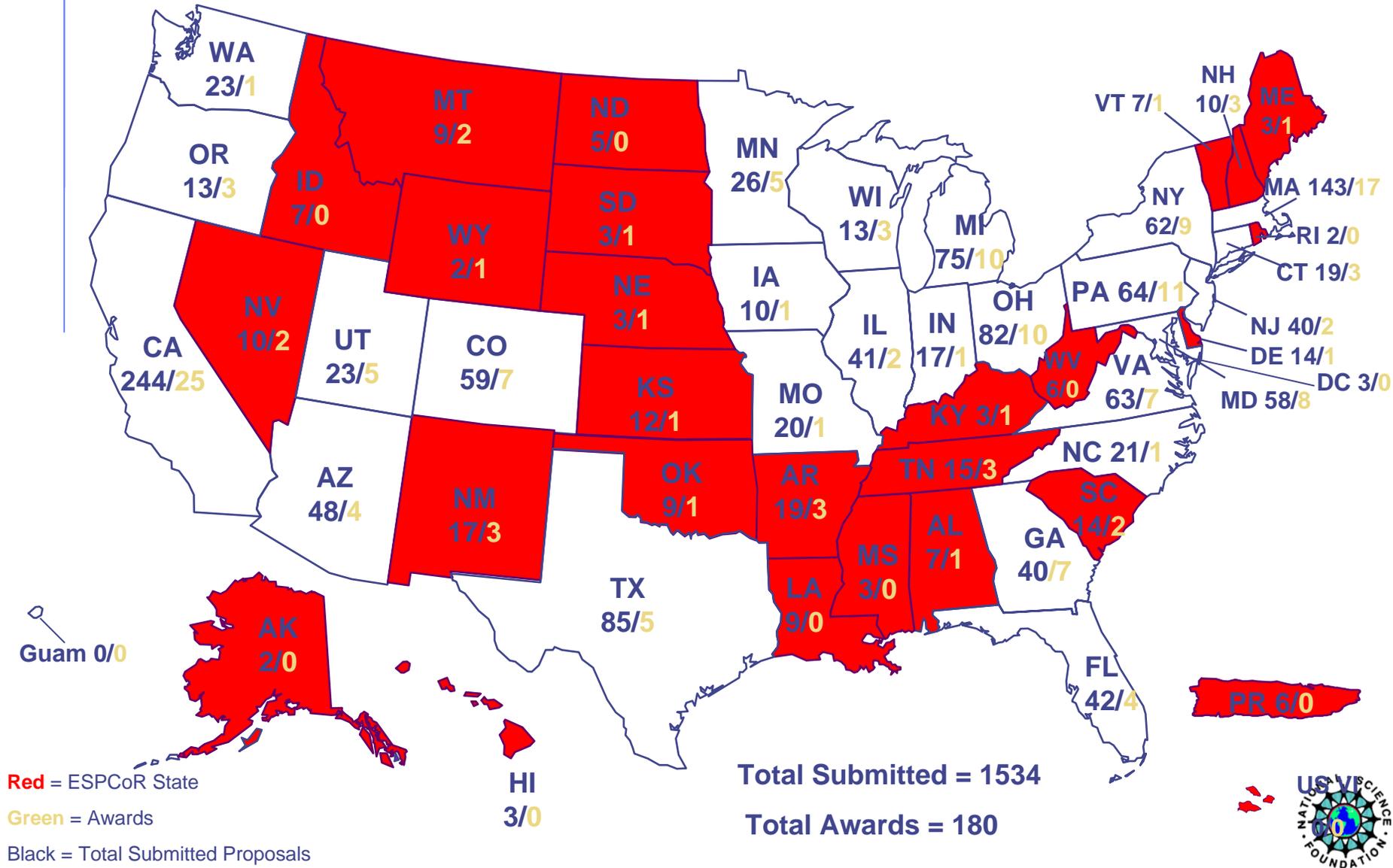
Green = ESPCoR State

Red = Awards

Black = Total Submitted Proposals



2005 Phase I Proposals



OII- Supplements

◆ REU-RET

◆ Phase IIB

◆ Phase IIA

◆ Phase IICC

◆ Phase IB



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SBIR/STTR Program

[Program Specification](#)

You must read completely prior to submitting a proposal!
This provides a comprehensive overview of the SBIR/STTR programs and the legislative requirements.

[Frequently Asked Questions for SBIR/STTR](#) - questions typically asked by the first time proposers.

[Contacts](#) - the people of the SBIR/STTR Program

DEADLINES FOR PROPOSAL SUBMISSIONS

<p>Phase I Program</p> <p>Proposals Due: December 8, 2005 (by 5:00p.m. proposer's time)</p>	<p>Phase II Program</p> <p>Phase II Proposals Submission Deadlines</p> <p>Phase II Proposal</p>
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- [Design and Manufacturing Innovation \(DMI\)](#)
- [Electrical & Communications Systems \(ECS\)](#)
- [Engineering Education & Centers \(EEC\)](#)
- [Office of Industrial Innovation \(OII\)](#)

How to Prepare Your Proposal

- [Grant Proposal Guide](#)
- [Frequently Asked Questions](#)
- [Other Types of Proposals](#)
- [Regional Grants Conferences](#)

DEADLINES FOR PROPOSAL SUBMISSIONS

Phase I Program

Proposals Due: December 8, 2005 (by 5:00p.m. proposer's time)

Topics for this Round:

- Biotechnology
- Chemical-Based Technologies
- Emerging Opportunities

(topic descriptions found in the Solicitation)

[SBIR/STTR Solicitation](#)

Phase II Program

[Phase II Proposals Submission Deadlines](#)

[Phase II Proposal Requirements](#)

[Phase IIB](#) (Phase IIB Proposals are Due March 1 and September 1 -- Check Requirements)

[NSF SBIR MatchMaker](#)

[Supplemental Opportunities](#)

NOTE: All proposals submitted to NSF must be submitted via the [Fastlane System](#)

[SBIR/STTR REVIEW PROCESS INFORMATION FOR PANELISTS AND MAIL REVIEWERS](#)

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Systems \(CTS\)](#)

Supplemental Opportunities

Phase IIA

- [Phase IIA Information](#) (Opportunity to Team with Minority Institutions)

REU/RET/RAHSS

- [REU Background](#)
- [RET Background](#)
- [RAHSS Background](#)
- [REU/RET/RAHSS Instructions](#)

Phase IICC

- [Phase IICC Information](#) (Funding for Minority-Serving Community College Research Teams)
- [List of Minority Serving Community Colleges](#)
- [List of NSF SBIR Active Awards](#)
- [Phase IICC Instructions](#)
- [Phase IICC Webcast](#)



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Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) Supplemental Funding for Diversity Collaborations

Dear Colleague Letter

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, in collaboration with the Centers for Research Excellence in Science and Technology (CREST) and Historically Black Colleges and Universities Research Infrastructure for Science and Engineering (HBCU-RISE), seek to fund supplements to current SBIR/STTR Phase II awards that:

- foster partnerships between the academic and small business communities;
- increase participation of underrepresented groups in both academic and small business research; and
- encourage members of underrepresented groups to pursue careers in science and engineering.

The Directorate for Engineering's Office of Industrial Innovation (OII) SBIR/STTR programs, in collaboration with the Directorate for Education and Human Resources' Division of Human Resource Development (HRD), invites all active SBIR/STTR Phase II, CREST, and RISE grantees to participate.

OVERVIEW OF WORK TO BE ACCOMPLISHED. The Small Business Minority Academic Research Partnership Supplement (henceforth to be referred to as SBIR/STTR Phase IIA) will award a research supplement to a current SBIR/STTR Phase II grantee able to partner with a CREST/RISE institution. The goals of the supplemental research are to:

- further the understanding of the SBIR/STTR Phase II research;
- facilitate the development of a stronger technology base within the SBIR/STTR organization;
- investigate the scientific or engineering underpinnings of the SBIR Phase II technology;
- utilize the NSF HRD supported research capabilities of the CREST/RISE institutions; and
- enhance the educational objectives associated with NSF HRD support.

CREST/RISE institutions interested in identifying and seeking possible partnerships with SBIR/STTR Phase II grantees should consult the NSF interactive award search system (reference: <http://www.nsf.gov/awardsearch>; under *Search Award For*, enter *SBIR Phase II or STTR Phase II and check Active Awards Only*). Also, a listing of eligible CREST/RISE institutions



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Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) Supplemental Funding for Minority-Serving Community College Research Teams

Dear Colleague Letter

The Directorate for Engineering's Office of Industrial Innovation (OII) Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, in collaboration with the Directorate for Education and Human Resources' Division of Human Resource Development (HRD) invites all active SBIR/STTR Phase II grantees to participate in a new supplemental funding opportunity. The supplements for research teams are intended to foster partnership between Minority-Serving Community Colleges (MSCCs), which educate large numbers of underrepresented students, and the small business community. NSF is seeking to increase the participation of underrepresented groups in both academic and small business research by encouraging careers in science and engineering.

Through this supplemental program small businesses will gain access to faculty and students capable of contributing to the scientific research conducted by the small business while faculty and students will gain experience by working on research projects that lead to commercial products and processes. It is anticipated that this research collaboration will lead to continued partnership between the academic institutions and small business firms, which represent the largest employer of scientists and engineers.

OVERVIEW OF WORK TO BE ACCOMPLISHED. The Small Business Minority-Serving Community College Research Teams Supplement (henceforth referred to as SBIR/STTR Phase IICC) will award research supplements to existing SBIR/STTR Phase II grantees that are able to host a research team from a MSCC. This supplement opportunity is intended to further SBIR/STTR Phase II research and facilitate progress toward their grant goals while providing a substantial scientific research experience for the MSCC research team.

Minority-Serving Community Colleges (MSCC): Historically Black Colleges, Hispanic-Serving Colleges, and Tribal Colleges are non-profit and whose highest degree awarded is the associate degree. A list of MSCCs can be found on the SBIR/STTR home page http://www.nsf.gov/eng/sbir/supplemental_requests.jsp under Phase IICC Eligible MSCCs.

MSCC Research Teams: Must consist of at least one MSCC faculty member and at least one MSCC student. (Teams with

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RAHSS Background

The Research Assistantship Supplements for High School Students (RA, which support active research participation by high schools students in the SBIR/STTR Program. The opportunity is intended to broaden the participation of women and minority students in both academic and small business research and thereby foster interest in pursuing science, technology and engineering at the college level. RAHSS projects involve students in meaningful ways in ongoing advanced applied research projects. High School student participants must be citizens or permanent residents of the United States or its possessions. It is permissible to apply for support for up to two students per project year.

Submission of applications for REU/RET/RAHSS supplements is encouraged early in the fiscal year, which begins October 1, but there is no fixed deadline for submission

See Also

<http://www.nsf.gov/pubs/2006/nsf06003/nsf06003.jsp>

Key Web Sites

<http://www.nsf.gov/div/index.jsp?div=HRD>

<http://www.nsf.gov/eng/oii>

